

## Message Text

UNCLASSIFIED

PAGE 01 STATE 286553  
ORIGIN EUR-12

INFO OCT-01 ISO-00 /013 R

66011

DRAFTED BY EUR/RPE:WRSALISBURY

APPROVED BY EUR/RPE:WRSALISBURY

-----015971 011039Z /10

R 010215Z DEC 77

FM SECSTATE WASHDC

INFO AMEMBASSY ROME 1975

UNCLAS STATE 286553

FOLLOWING REPEAT BRUSSELS 16498 ACTION SECSTATE  
INFO DOE WASHDC DOE GERMANTOWN ALL EC CAPITALS 17 NOV 77

QUOTE

UNCLAS BRUSSELS 16498

USEEC

PARIS ALSO FOR USOECD

E.O. 11652: N/A

TAGS: ENRG, EC, PARM

SUBJECT: PLUTONIUM UTILIZATION IN EC

REF: STATE 268440

1. SUMMARY: MISSION HAS OBTAINED AN ADVANCED COPY OF A REPORT SOON TO BE RELEASED BY THE EC COMMISSION ON PLUTONIUM PROSPECTS IN THE EUROPEAN COMMUNITY. IT ESTIMATES, THROUGH 1990, THE AMOUNT OF PLUTONIUM THAT WILL BE PRODUCED, REPROCESSED, AND NEEDED TO SUPPORT DEVELOPMENT OF FAST BREEDER REACTORS. IT CONCLUDES THAT THERE WILL BE UNCLASSIFIED

UNCLASSIFIED

PAGE 02 STATE 286553

CONSIDERABLE EXCESS PLUTONIUM THAT COULD BE RECYCLED IN LIGHT WATER REACTORS. END SUMMARY.

2. THE RATE OF PLUTONIUM PRODUCTION IS LIMITED BY THE REPROCESSING CAPACITY WITHIN THE EC, NOT BY THE GENERATION OF SPENT FUEL ELEMENTS. REPROCESSING CAPACITY FOR URANIUM OXIDE FUEL IS PROJECTED TO BE ABOUT 800 TONS PER

YEAR IN 1980, BETWEEN 1,700 AND 2,900 TONS PER YEAR IN 1985, AND BETWEEN 5,100 AND 7,600 TONS PER YEAR IN 1990. THIS, WHEN COMBINED WITH THE PLUTONIUM BEING EXTRACTED FROM URANIUM METAL FUEL OF THE UK AND FRENCH GAS-COOLED REACTORS, RESULTS IN THE CUMULATIVE PRODUCTION OF 30 TONS OF PLUTONIUM BY 1980; 72 TONS BY 1985, AND 165 TONS BY 1990. OF THIS, IT IS ESTIMATED THAT 10 TONS BY 1985 AND 20 TONS BY 1990 WILL BE PLUTONIUM THAT IS RETURNED TO NON-EC COUNTRIES.

3. THE GROSS NEED FOR PLUTONIUM TO SUPPORT FAST BREEDER REACTOR DEVELOPMENT NOW SCHEDULED IN THE COMMUNITY IS: 16 TONS BY 1980; 42 TONS BY 1985; AND 105 TONS BY 1990. THUS, A SURPLUS OF PLUTONIUM IS PROJECTED. THIS SURPLUS WOULD BE EVEN LARGER IF A REPROCESSING CAPABILITY EXISTED TO HANDLE THE SPENT FUEL THAT WILL BE COMING OUT OF THE FAST BREEDER REACTORS. THE ESTIMATED DEPLOYMENT OF COMMERCIAL FAST BREEDER REACTORS IS SHOWN AS ONE PER YEAR COMING ON LINE STARTING IN 1986.

4. THE REPORT THEN DISCUSSES THE SAVINGS (IN NATURAL URANIUM REQUIREMENTS AND IN ENRICHMENT EFFORT) THAT WOULD ACCRUE BY MAKING MAXIMUM USE OF THE SURPLUS PLUTONIUM AS MIXED OXIDE FUEL IN LIGHT WATER REACTORS. THE RESULT IS A SAVING OF ABOUT 5 PERCENT IN REQUIREMENT FOR NATURAL URANIUM AND ABOUT 10 PERCENT IN ENRICHMENT EFFORT. THESE UNCLASSIFIED

UNCLASSIFIED

PAGE 03 STATE 286553

RESULTS ARE LOWER THAN SOMETIMES QUOTED BECAUSE THEY TAKE ACCOUNT OF THE FACT THAT ONLY A PART OF THE PRODUCED PLUTONIUM IS RECYCLED IN LIGHT WATER REACTORS (THE REST SUPPORTING FAST BREEDER DEVELOPMENT).

5. EXISTING EUROPEAN MIXED-OXIDE FUEL FABRICATION FACILITIES CAN SUPPORT THE PROJECTED FAST BREEDER AND PLUTONIUM RECYCLING PROGRAM THROUGH 1980, BUT WILL HAVE TO BE DOUBLED OR TRIPLED BY 1990.

6. THE REPORT DOES NOT INCLUDE AN ECONOMIC ANALYSIS OF THE SUGGESTED RECYCLING PROGRAM. IT DOES, HOWEVER, NOTE THAT ANOTHER COMMISSION STUDY IS UNDERWAY THAT DEALS WITH THE ENVIRONMENTAL ASPECTS OF PLUTONIUM RECYCLE.

7. COPIES OF THE DRAFT REPORT WERE ALSO FURNISHED BY THE EC TO THNG ON NOVEMBER 14, 1977. MORRIS. UNQUOTE VANCE".

UNCLASSIFIED

NNN

## Message Attributes

**Automatic Decaptioning:** X  
**Capture Date:** 01-Jan-1994 12:00:00 am  
**Channel Indicators:** n/a  
**Current Classification:** UNCLASSIFIED  
**Concepts:** PLUTONIUM, REPORTS  
**Control Number:** n/a  
**Copy:** SINGLE  
**Sent Date:** 01-Dec-1977 12:00:00 am  
**Decaption Date:** 01-Jan-1960 12:00:00 am  
**Decaption Note:**  
**Disposition Action:** n/a  
**Disposition Approved on Date:**  
**Disposition Case Number:** n/a  
**Disposition Comment:**  
**Disposition Date:** 01-Jan-1960 12:00:00 am  
**Disposition Event:**  
**Disposition History:** n/a  
**Disposition Reason:**  
**Disposition Remarks:**  
**Document Number:** 1977STATE286553  
**Document Source:** CORE  
**Document Unique ID:** 00  
**Drafter:** WRSALISBURY  
**Enclosure:** n/a  
**Executive Order:** N/A  
**Errors:** N/A  
**Expiration:**  
**Film Number:** D770445-0418  
**Format:** TEL  
**From:** STATE  
**Handling Restrictions:** n/a  
**Image Path:**  
**ISecure:** 1  
**Legacy Key:** link1977/newtext/t197712104/aaaadknl.tel  
**Line Count:** 113  
**Litigation Code IDs:**  
**Litigation Codes:**  
**Litigation History:**  
**Locator:** TEXT ON-LINE, ON MICROFILM  
**Message ID:** 74efcefb-c188-dd11-92da-001cc4696bcc  
**Office:** ORIGIN EUR  
**Original Classification:** UNCLASSIFIED  
**Original Handling Restrictions:** n/a  
**Original Previous Classification:** n/a  
**Original Previous Handling Restrictions:** n/a  
**Page Count:** 3  
**Previous Channel Indicators:** n/a  
**Previous Classification:** n/a  
**Previous Handling Restrictions:** n/a  
**Reference:** 77 STATE 268440  
**Retention:** 0  
**Review Action:** RELEASED, APPROVED  
**Review Content Flags:**  
**Review Date:** 24-Jan-2005 12:00:00 am  
**Review Event:**  
**Review Exemptions:** n/a  
**Review Media Identifier:**  
**Review Release Date:** n/a  
**Review Release Event:** n/a  
**Review Transfer Date:**  
**Review Withdrawn Fields:** n/a  
**SAS ID:** 111675  
**Secure:** OPEN  
**Status:** NATIVE  
**Subject:** PLUTONIUM UTILIZATION IN EC  
**TAGS:** ENRG, PARM, XT, EEC  
**To:** ROME  
**Type:** TE  
**vdkgvwkey:** odbc://SAS/SAS.dbo.SAS\_Docs/74efcefb-c188-dd11-92da-001cc4696bcc  
**Review Markings:**  
Margaret P. Grafeld  
Declassified/Released  
US Department of State  
EO Systematic Review  
22 May 2009  
**Markings:** Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009